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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/826,320	04/19/2004	Jun-Hyuk Lee	P57051	1061

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EXAMINER	
VU, MICHAEL T	
ART UNIT	**PAPER NUMBER**
2683	

DATE MAILED: 12/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/826,320	LEE, JUN-HYUK	
	Examiner	Art Unit	
	Michael Vu	2683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *8-14* is/are allowed.

6)☒ Claim(s) *1-7 and 15-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *19 April 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *04/19/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1 - 20 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-17 of copending Application No. 10/826413. Although the conflicting claims are not identical, they are not patentably distinct from each other because the invention of the pending claims encompasses a similar invention as recited in the copending claims.

Both applicants are similarity comprising a Private EV-DO wireless network coupled to a Public EV-DO wireless network included a relay unit, call processor, and session information request signal and generated by the call processor from or to a public network data location register being received between a Private and Public wireless networks.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sayers (US 2003/0186694) in view of Ray (US 2003/0135626) in further view of Akahane (US 2004/0010617).

Regarding **claim 1**. Sayers teaches a system comprising: a private EV-DO wireless network coupled to a public EV-DO wireless network including a data location

register adapted to provide private EV-DO wireless data service (Fig. 1 and Fig. 2, Public and Private Networks); a relay unit adapted to relay a corresponding call connection request signal upon the call connection request signal being received from a terminal entering the private EV-DO wireless network (Fig. 2, Private Wireless Network, element 22-1, and Hub 23); **but is silent on** a call processor adapted to generate a session information request signal with respect to the corresponding terminal upon the call connection request signal relayed from the relay unit being a first call connection request signal, and to process a call by assigning a traffic channel to the connection terminal according to the received session information upon the session information corresponding to the requested session information request signal being received; and a session information processor adapted to request the session information request signal of the corresponding terminal generated by the call processor from a public network data location register in the public EV-DO wireless network.

However, Ray teaches a system that contains the source access networks that routing the session information back to the target access network, and shared state between the Access Terminal and Access Network, which shared state stores the protocols and the protocol configurations that are used for communication between the Access Terminal and Access Network such as Point-to-Point Protocol (PPP), or Link Control Protocol (LCP) to negotiations for access authentication, and further the physical traffic channel being assigned (Abstract, [0005-0009, 0028, 0034, 0037] of Ray). As Examiner noted that the data location register from public to private network

does not need to store the information for the first time. At least two or more times then stored in the Private-Data Location Register (DLR).

However, the combination of Sayers and Ray teach the authentication information service between Private and Public Wireless Network. **But is silent on** to extract authentication information of the terminal included in the session information of the corresponding terminal received from the public network data location register, to store the received session information of the corresponding terminal in a database upon the extracted authentication information being authentication information of the terminal registered in the private EV-DO wireless network, and to provide the call processor with the corresponding session information .

However, Akahane teaches a request routing system for a high-quality and low-priced data delivery services. Which select the closest router to a user terminal can be set by pre-registering a user network address at the time of contract signing and letting the Request Router to select a router according to the network address, IP routing table, and the like. Another method is to examine the header of an IP packet that stores a data request message from a terminal as a payload, and extract the source IP address from the header, and let the Request Router select a router according to the source IP address, IP routing table, and the like (Fig. 4, and Fig. 17, [0097]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Sayers, such that to extract authentication information of the terminal included in the session information of the corresponding terminal received from the public network data location register, to store the received

session information of the corresponding terminal in a database upon the extracted authentication information being authentication information of the terminal registered in the private EV-DO wireless network, and to provide the call processor with the corresponding session information, to meet the increasing demand for the Wireless High-Speed Data System with an efficiency and a low data rates while transfer data from the source to the target.

Regarding **claim 2**. Sayers/Ray/Akahane teach the system according to claim 1, Sayers further teaches wherein the authentication information includes an IMSI (International Mobile Station Identity) ([0048-0049] of Sayers).

Regarding **claim 3**. Sayers/Ray/Akahane teach the system according to claim 1, Sayers further teaches wherein the session information processor is coupled to a data location register of the public EV-DO wireless network with a dedicated line ([0042] of Sayers).

Regarding **claim 4**. Sayers/Ray/Akahane teach the system according to claim 1, Ray further teaches wherein the session information processor provides the call processor with the session information of the corresponding terminal stored in the database upon the first call being connected to the session information processor without performing a separate terminal authentication process and without requesting the session information of the corresponding terminal from the public data location register of the public EV-DO wireless network, upon a connected call of the terminal received through the relay unit being a second or further connection call .

As Ray noted that a data session shared state between the Access Terminal (AT) and Access Network (AN), this shared state stores the protocols and protocol configurations that are used for communication between those two connections AT and AN ([0028, 0037, 0045 of Ray).

Regarding **claim 5**. Sayers/Ray/Akahane teach the system according to claim 1, Sayers further teaches wherein the terminal includes a temporary identifier information generator adapted to add temporary identifier information to a call connection request signal transmitted to the relay unit upon a call being connected to the private EV-DO wireless network, the temporary identifier information being used to determine whether a corresponding call is a connection call to be connected to the public EV-DO wireless network or a connection call to be connected to the private EV-DO wireless network ([0221-0222] of Sayers).

Regarding **claim 6**. Sayers/Ray/Akahane teach the system according to claim 1, Sayers further teaches wherein the call processor includes a routing module adapted to determine whether the corresponding terminal connection call is a private EV-DO wireless network connection call or a public EV-DO wireless network connection call according to temporary identifier information included in the call connection request signal transmitted to the relay unit from the terminal, and to rout the corresponding call to one of the private EV-DO wireless network and the public EV-DO wireless network in accordance with a result of the determination ([0221-0222] of Sayers).

Regarding **claim 7**. Sayers/Ray/Akahane teach the system according to claim 1, Sayers further teaches comprising a data packet service node adapted to provide a

corresponding terminal with data via an Intranet in the private EV-DO wireless network through the call processor upon a traffic channel to the corresponding terminal being assigned from the call processor and the call being processed ([0031, 0124] of Sayers).

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

6. Claims 15-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Sayers.

Regarding **claim 15**. Sayers teaches a method of performing terminal authentication and call processing in a private network (Abstract), the method comprising: securing session information for processing a call from a public network data location register and storing the secured session information in a private network data location register upon a first call connection from a private network terminal and processing a call [0051, 0108]; and further processing a call in the private network according to the session information stored in the private network data location register upon a further call connection from the private network terminal (Abstract, [0048-0049]).

Regarding **claim 16**. Sayers teaches the method of claim 15, further comprising coupling the public network data location register to the private network data location register via a dedicated line [0042].

Regarding **claim 17**. Sayers teaches the method of claim 16, wherein the secured session information includes an IMSI (International Mobile Station Identity) [0219-0225].

Regarding **claim 18**. Sayers teaches a system of performing terminal authentication and call processing in a private network, the system comprising: a public network including a public network data location register; and a private network including a private network data location register (Fig. 1 and Fig. 2, Private and Public Network); wherein the private network secures session information for processing a call from the public network data location register and stores the secured session information in the private network data location register upon a first call connection from a private network terminal and then processes a call [0051, 0108]; and wherein the private network further processes a call in the private network according to the session information stored in the private network data location register upon a further call connection from the private network terminal (Abstract, [0048-0049]).

Regarding **claim 19**. Sayers teaches the system of claim 18, wherein the secured session information includes an IMSI (International Mobile Station Identity) [0219-0225].

Regarding **claim 20**. Sayers teaches the system of claim 19, further comprising a dedicated line adapted to couple the public network data location register to the private network data location register [0042].

Allowable Subject Matter

7. Claims 8-14 are allowed.

8. The following is an examiner's statement of reasons for allowance: Claims 8-14 are allowed over newly submitted prior art Sayers and Ray, while teaching a system and a method which is improving the data session information management when communicating between the Access Terminal (AT) and Access Network (AN). The prior art cited fails to teach the claimed combination of features. And the examiner notes that the limitations of claims 8-14 are novel over the prior art of record (Sayers/Ray/Akahane). This limitations as disclosed in the specific manner of determining in the private data location register whether the session information requested from the private control station is registered in a database and determining that the session information of the corresponding terminal is the first private EV-DO wireless network connection call and requesting the session information of the corresponding terminal to a public data location register of the public EV-DO wireless network upon the session information of the corresponding terminal not being registered and receiving the session information of the corresponding terminal from the public data location register; performing private authentication of the corresponding terminal in the private data location register using the session information of the received corresponding terminal and transmitting the session information of the corresponding terminal to the private control station and storing the corresponding session information in the database; and assigning a traffic channel of the corresponding terminal according to the session information of the terminal transmitted from the private data location

register and performing data service through the assigned channel with the private control station.

Regarding **claim 9**. The prior art made of record fails to clearly teach or fairly suggest. The method according to claim 8, wherein the terminal transmits the call connection request signal to the private control station and additionally transmits temporary identifier information used to determine whether the corresponding call is a public EV-DO wireless network connection call or a private EV-DO wireless network connection call upon a call connection request signal being transmitted to the private base station.

Regarding **claim 10**. The prior art made of record fails to clearly teach or fairly suggest. The method according to claim 8, wherein requesting the session information of the terminal to the private data location register includes analyzing temporary identifier information included in the call connection request signal transmitted to the private base station from the terminal in the private control station and selectively routing a corresponding call connection request signal to a data location register of one of the public EV-DO wireless network and the private EV-DO wireless network.

Regarding **claim 11**. The prior art made of record fails to clearly teach or fairly suggest. The method according to claim 8, wherein, in receiving the session information of the corresponding terminal from the public data location register, upon the session information requested from the private control station being registered in the database, the private data location register determines that the call connection of the corresponding terminal is not the first call connection but is a second or further call

connection and provides the control station with the session information of the terminal stored in the database without authentication of a separate terminal.

Regarding **claim 12**. The prior art made of record fails to clearly teach or fairly suggest. The method according to claim 8, wherein the private information includes an IMSI (International Mobile Station Identity).

Regarding **claim 13**. The prior art made of record fails to clearly teach or fairly suggest A method comprising: requesting the session information of the terminal for performing the private authentication and the call processing of the corresponding terminal to a public data location register located in the public EV-DO wireless network upon a determination that the session information for the corresponding terminal does not exist in the database; extracting IMSI (International Mobile Station Identity) information for authenticating a terminal included in the session information of the received corresponding terminal upon the session information of the corresponding terminal being received from the public data location register; determining whether the extracted IMSI information of the terminal is IMSI information of the terminal registered in the private EV-DO wireless network and performing private authentication of the corresponding terminal; and assigning a traffic channel of the corresponding terminal using the session information of the corresponding terminal and performing data service to the terminal through the assigned channel upon the authentication of the terminal being completed after storing the session information of the corresponding terminal in the database.

Regarding **claim 14**. The prior art made of record fails to clearly teach or fairly suggest. The method according to claim 13, wherein determining whether the session information for the corresponding terminal exists in the database includes determining that the connection call of the corresponding terminal is a second or further connection call and assigning the traffic channel of the corresponding terminal using the session information of the corresponding terminal stored in the database without private authentication of a separate terminal upon the session information for the corresponding terminal existing in the database and performing data service to the terminal through the assigned channel.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

1. Sayers US 2005/0059390
2. Sayers US 2003/0186694
3. Ray US 2003/0135626
4. Chang US 2003/0223427
5. Chang US 2004/0203771
6. Kim US 2004/0048610
7. Mohammed US 2005/0207395
8. Waylett US 2005/0088999
9. Peng US 2003/0145091

10. Kong US 20040185879

11. Kim US 2004/0218587

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Vu whose telephone number is (571)272-8131. The examiner can normally be reached on 8:00am - 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on 571-272-7872. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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